

REMARKS:

In response to the Office Action mailed August 14, 2002, claims 54-65 have been amended.

In the Office Action, claims 54-65 were rejected under 35 U.S.C. § 112, first paragraph. In addition, claims 54-65 were rejected under the judicially created doctrine of double patenting over claims 1-12 of U.S. Patent No. 6,116,626. Finally, claims 54-65 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,494,042 (“the Panescu et al. ‘042 reference”) in view of U.S. Patent No. 5,916,163 (“the Panescu et al. ‘163 reference”)

Because neither of the cited references qualifies as prior art under 35 U.S.C. § 103(a), reconsideration and withdrawal of the rejections is respectfully requested.

First, with respect to the judicially created doctrine of double patenting rejection, Applicants submit herewith a Terminal Disclaimer, disclaiming the terminal part of any patent granted on the present application that would extend beyond the expiration date of U.S. Patent No. 6,115,626 (the Office Action erroneously recites U.S. Patent No. 6,116,626, which is an obvious typographical error, because U.S. Patent No. 6,115,626 is the grandparent of the present application, while U.S. Patent No. 6,116,626 is an unrelated patent). Therefore, the double patenting rejections should be withdrawn.

With respect to the § 112, first paragraph, rejections, claims 54-65 have been amended simply to recite “a map” rather than “a functional map.” The specification provides adequate written description to support “a map,” for example, in Section 4.b. of the Description of the Preferred Embodiments. Accordingly, the § 112 rejections should be withdrawn.

Finally, with respect to the Panescu et al. ‘042 and ‘163 references, these references do not qualify as prior art against the present claims. Section 103(c) states that “Subject matter developed

by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation to assignment to the same person.” At the time that the subject matter of the present application was developed, all of the inventors were employees of EP Technologies, which is the assignee on the face of the Panescu et al. ‘042 and ‘163 references. The assignee of the present application is Scimed Life Systems. Scimed Life Systems and EP Technologies are both wholly owned subsidiaries of Boston Scientific Corporation. Therefore, the present application and both of the cited references are owned by the same person. Accordingly, the rejections under § 103(a) should be withdrawn.

In view of the foregoing, it is submitted that the claims presented in this application define patentable subject matter over the cited prior art. Accordingly, reconsideration and allowance of the application is requested.

Respectfully submitted,

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VERSION WITH MARKINGS SHOWING CLAIM AMENDMENTS:

54. (amended) A system, comprising:

an electrode structure which, in use, is deployed in contact with heart tissue; and

an interface, the interface including

 a controller coupled to the electrode structure operating to condition the electrode structure to perform a diagnostic or therapeutic procedure and to monitor events during the procedure,

 a display screen, and

 an interface manager coupled to the controller and the display screen, the interface manager including

 a first function to generate a display comprising a [functional] map of the electrode structure at least partially while performing the procedure, and
 a second function to annotate the [functional] map in response to events monitored by the controller,

wherein the electrode structure and [functional] map of the electrode structure includes a plurality of electrodes and further including a function to find an electrode on the display by entering a coordinate of the electrode.

55. (amended) A system, comprising:

an electrode structure which, in use, is deployed in contact with heart tissue; and

an interface, the interface including

a controller coupled to the electrode structure operating to condition the electrode structure to perform a diagnostic or therapeutic procedure and to monitor events during the procedure,

a display screen, and

an interface manager coupled to the controller and the display screen, the interface manager including

a first function to generate a display comprising a [functional] map of the electrode structure at least partially while performing the procedure, and

a second function to annotate the [image] map in response to events monitored by the controller,

wherein the second function includes a function to manually add an annotation to the [functional] map of the electrode structure on the display, the annotation selected from the group consisting of an identifier, a marker, and an associated text comment.

56. (amended) A system according to claim 54 or 55, wherein the first function includes an adjustment function to manually alter the geometrical appearance of the [functional] map.

57. (amended) A method for mapping myocardial tissue, comprising:
deploying an electrode structure [in contact with] adjacent myocardial tissue;
generating a display comprising a [functional] map of the electrode structure;

causing the electrode structure to pace myocardial tissue and recording paced electrical events in the myocardial tissue while the [functional] map is displayed for viewing; and annotating the [functional] map in response to the paced electrical events which are recorded, wherein the electrode structure and [functional] map of the electrode structure include a plurality of electrodes and further including finding an electrode on the display by entering a coordinate of the electrode.

58. (amended) A method for mapping myocardial tissue, deploying an electrode structure [in contact with] adjacent myocardial tissue; generating a display comprising a [functional] map of the electrode structure; causing the electrode structure to pace myocardial tissue and recording paced electrical events in the myocardial tissue while the [functional] map is displayed for viewing; annotating the [functional] map in response to the paced electrical events which are recorded; and

manually adding an annotation to the [functional] map of the electrode structure on the display, the annotation selected from the group consisting of an identifier, a marker and an associated text comment.

59. (amended) A method for mapping myocardial tissue, comprising: deploying an electrode structure [in contact with] adjacent myocardial tissue; generating a display comprising a [functional] map of the electrode structure;

causing the electrode structure to pace myocardial tissue and recording paced electrical events in the myocardial tissue while the [functional] map is displayed for viewing; annotating the [functional] map in response to the paced electrical events which are recorded; and manually altering the geometrical appearance of the [functional] map.

60. (amended) An interface for association with an electrode structure which, in use, is deployed in contact with heart tissue to perform a diagnostic or therapeutic procedure, the interface comprising:

a display screen; and
an interface manager coupled to the display screen and including a first function to generate a display comprising a [functional] map of the electrode structure at least partially while performing the procedure, and a second function to annotate the [functional] map to show an anatomic feature, wherein the electrode structure and displayed [functional] map of the electrode structure includes a plurality of electrodes and further including a function to find an electrode on the display by entering a coordinate of the electrode.

61. (amended) An interface for association with an electrode structure which, in use, is deployed in contact with heart tissue to perform a diagnostic or therapeutic procedure, the interface comprising:

a display screen; and

an interface manager coupled to the display screen and including a first function to generate a display comprising a [functional] map of the electrode structure at least partially while performing the procedure, and a second function to annotate the [functional] map to show an anatomic feature, wherein the second function includes a function to manually add an annotation to the [image of the functional] map of the electrode structure on the display, the annotation selected from the group consisting of an identifier, a marker and an associated text comment.

62. (amended) An interface for association with an electrode structure which, in use, is deployed in contact with heart tissue to perform a diagnostic or therapeutic procedure, the interface comprising:

a display screen; and

an interface manager coupled to the display screen and including a first function to generate a display comprising a [functional] map of the electrode structure at least partially while performing the procedure, and a second function to annotate the [functional] map to show an anatomic feature, wherein the first function includes an adjustment function to manually alter the geometric appearance of the [functional] map in response to operator input.

63. (amended) A method for examining myocardial tissue, comprising:

deploying an electrode structure [in contact with] adjacent myocardial tissue; generating a display comprising a [functional] map of the electrode structure; annotating the [functional] map to show an anatomic feature; and

causing the electrode structure to conduct a diagnostic or therapeutic procedure affecting myocardial tissue while the [functional] map is displayed for viewing,

wherein the electrode structure and displayed [functional] map of the electrode structure includes a plurality of electrodes and further including finding an electrode on the display by entering a coordinate of the electrode.

64. (amended) A method for examining myocardial tissue, comprising:
deploying an electrode structure [in contact with] adjacent myocardial tissue;
generating a display comprising a [functional] map of the electrode structure;
annotating the [functional] map to show an anatomic feature;
causing the electrode structure to conduct a diagnostic or therapeutic procedure affecting myocardial tissue while the [functional] map is displayed for viewing; and

manually adding an annotation to the [functional] map of the electrode structure on the display, the annotation selected from the group consisting of an identifier, a marker and an associated text comment.

65. (amended) A method for examining myocardial tissue, comprising:
deploying an electrode structure [in contact with] adjacent myocardial tissue;
generating a display comprising a [functional] map of the electrode structure;
annotating the [functional] map to show an anatomic feature;
causing the electrode structure to conduct a diagnostic or therapeutic procedure affecting myocardial tissue while the [functional] map is displayed for viewing; and

manually altering the geometric appearance of the [functional] map.